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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/752,649	01/08/2004	John Christenson	589-004	4207

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EXAMINER

SALDANO, LISA M

ART UNIT

PAPER NUMBER

3673

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/752,649

Applicant(s)

CHRISTENSON, JOHN

Examiner

Lisa M. Saldano

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. Figure 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the encapsulation of the upper portion of the piling and associated header, as claimed in claim 1, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes

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made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Information Disclosure Statement

3. The listing of references on page 3 of the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More specifically, the applicant recites limitations wherein "said jacket has been injected with the foam of the present invention in accordance with the teachings of U.S. Patent 5,919,004 or 5,829,920." It is not clear what the applicant intends to claim by referring to the teachings of other patents. The examiner suggests that the applicant positively claim the structure and features of the invention directly in the claims of the present invention. For the purpose of providing an art examination, the claim has been interpreted as best understood.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doleshal (5,226,751) in view of Watts, Jr. (4,245,931) and Christenson (5,919,004) and Wilson (4,063,429).

Doleshal discloses a process and apparatus for creating a controlled environment around a submerged pile 10 or other structures by encapsulation and treating and repairing the encapsulation area. Doleshal discloses that the process is used to create an encapsulated space

along a desired portion of a pile. Doleshal states that the portion of the pile may be either partially or wholly underwater. Doleshal further disclose that the process constitutes a technique to reduce deterioration of the pile due to wave action, tides, corrosion, insects, marine animals and so forth (see column 1, lines 10-15 and column 4, lines 1-45). The process comprises an embodiment wherein a metal jacket 20 is provided (see column 4, lines 33-45) and filled with an expanding closed-cell foam formed from liquid chemicals, epoxy resins or the like (see column 5, lines 5-35). The jacket is removed from the pile after the coating 14 formed by the foam filler has cured, allowing the jacket to be reused and leaving the pile encapsulated by a cured coating.

However, Doleshal fails to explicitly disclose that the upper portion of the piling and an associated header are encapsulated. Doleshal also fails to explicitly disclose that foam is a sprayed mixture comprising the compounds claimed by the applicant of the present invention. Doleshal also fails to explicitly disclose that the steps are performed when a water level is below the high water level. Doleshal also fails to disclose specific coating thickness for the foam coating.

Watts discloses a post assembly 10 and method wherein a covering 14 over a head post end includes a foamed sythetic resin 16 (see abstract and column 4, lines 1-15 and Fig.1). Watts discloses that the invention provides a means to minimize the problem of wood posts and pilings deteriorating from weather exposure, bacteria, fungi and insects (see column 1, lines 15-30).

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the encapsulation process of Doleshal to the upper portion and associated header of a piling, as taught by Watts, because Doleshal discloses that the encapsulation method may be used along any portions of the pile, not excluding an upper portion. Watts merely provides

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explicit proof that one of ordinary skill in the art may choose to provide encapsulation of the head post end of a pile for protection of the pile from deteriorating effects such as weather exposure, bacteria, fungi and insects.

Wilson discloses a method of protecting a pipeline from deleterious effects caused by contact of the pipeline with water (see column 1, lines 45-65) wherein a foam reaction mixture is sprayed over the pipeline thereby encapsulating the pipeline only at the location of a selected segment (see column 6, claim 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the encapsulation process of Doleshal comprising foam wherein the foam is sprayed at a selected segment, as taught by Wilson, because both inventions teach the process of encapsulating a structural element from harmful effects. Wilson explicitly discloses that the foam may be sprayed on the structural element for the purpose of encapsulation. Furthermore, the Wilson also teaches that the spraying method of foam application allows the person applying the foam to encapsulate select segment of the structural element, such as an upper portion of the structural element.

Christenson discloses a method and apparatus for protective encapsulation of structural members wherein a pile 10 is encapsulated using foam 54 to fill voids and prevent marine infestation of the pile. Christenson discloses that preferred foam for this purpose includes a reaction mixture of isocyanate, up to about 20 percent by weight of CHClF_2 , up to about 2 percent by weight of water, and a combination of polyols having an average OH number from about 300 to 500 further comprising polyalkoxylated glycerine having an OH number of from

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about 200 to about 300 and in which the alkoxy groups each have from 2 to about 3 carbon atoms.

Regarding claim 2, Christenson discloses a method of jacketing a submerged portion of a piling wherein the jacket has been injected with the foam as described above.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the specific foam taught by Christenson to the foam encapsulation method of Doleshal because Christenson clearly discloses that a preferred foam for the encapsulating piles includes the reaction mixture reaction mixture as described above.

Although Doleshal fails to explicitly disclose a range of thickness for the foam, the optimal range of the foam coating thickness can be obtained through routine experimentation based on the foam characteristics.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bell, Jr. (4,983,072), Hansen (5,525,009) and Wadas, Jr. (5,718,851) disclose the features pertinent to the present application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa M. Saldano whose telephone number is 703-605-1167. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather C. Shackelford can be reached on 703-308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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